

Notice of Allowability

Application No.

09/891,512

Examiner

Sath V. Perungavoor

Applicant(s)

DRESEVIC ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/06/2005.
2. ☒ The allowed claim(s) is/are 1-6, 8-10 and 27 (Renumbered 1-10).
3. ☒ The drawings filed on 27 June 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892) ✓
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment ✓
8. ☒ Examiner's Statement of Reasons for Allowance ✓
9. ☒ Other Device-Independent Bitmap Sizing

DETAILED ACTION

EXAMINER'S AMENDMENT

[1] An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Christopher R. Glembocki (Reg. No. 38,800) on May 18, 2005. Substitute claims 1, 6, 9, 10 and 27 with the following:

Add application number 09/852,799 to paragraph [01] Line 4.

Add application number 09/870,478 to paragraph [01] Line 6.

Claim 1

A computer readable medium having a data structure stored thereon, said data structure being read and processed by a computer, said data structure for use with handwritten electronic ink for providing a standard ink framework, said handwritten electronic ink being data in a first ink capture space, said data structure comprising:

a first portion storing coordinate data relating to said handwritten electronic ink in said first ink capture space;

a second portion storing a first mapping of the first ink capture space to a virtual ink space, said virtual ink space relating to a coordinate system of an ink space rectangle, said first mapping for transforming the coordinate data in said first ink capture space to said virtual ink space defined by said standard ink framework, wherein said first mapping is of the form of:

$$X' = ax + by + c$$

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$$Y' = dx + ey + f; \text{ and}$$

a third portion storing a second mapping, said second mapping for transforming said virtual ink space to a display space, such that said second mapping is of the form of:

$$X'' = gx' + hy' + i$$

$$Y'' = jx' + ky' + m$$

such that combination of said first mapping and said second mapping is of the form of:

$$X'' = (ga + hd)x + (gb + he)y + gc + hf + i$$

$$Y'' = (ja + kd)x + (jb + ke)y + jc + kf + m,$$

said variables a, b, c, d, e, f, g, h, i, j, k, and m are coefficients that define the first and second mappings and said first and second mappings allowing said coordinate data to be rendered to said display space.

Claim 6

The computer readable medium according to claim 1, wherein the mapping is a set of equations of the form

$$X' = ax + by + c$$

$$Y' = dx + ey + f$$

where (X,Y) is a coordinate of the data in said first ink capture space and (X',Y') is a coordinate of data in the virtual ink space.

Claim 9

The computer readable medium according to claim 1, wherein the first portion is part of an ink stroke and the second and third portions are part of a property table containing properties for the ink stroke.

Claim 10

The computer readable medium according to claim 9, wherein the property table includes a fourth portion for storing said first mapping of the coordinate data in said first ink capture space to a second virtual ink space.

Claim 27

The computer readable medium according to claim 9, wherein the property table includes a fourth portion for storing a third mapping of the coordinate data from said virtual ink space to a second display space.

Cancellation of withdrawn claims

Cancel claims 11-26 as being drawn to nonelected claims in applicants' election without traverse.

REASONS FOR ALLOWANCE

[2] The following is an examiner's statement of reasons for allowance: As illustrated in Figure 4, handwritten electronic ink from tablets of various resolutions are transformed to a standard size format, and a secondary transformation is performed to transform from the standard size to the one or more output (display) size.

The instant invention recites a computer readable medium having a data structure stored thereon, said data structure being read and processed by a computer, said data structure for use with handwritten electronic ink for providing a standard ink framework, said handwritten electronic ink being data in a first ink capture space, said data structure comprising:

a first portion storing coordinate data relating to said handwritten electronic ink in said first ink capture space [401-404 on Figure 4];

a second portion storing a first mapping of the first ink capture space to a virtual ink space, said virtual ink space relating to a coordinate system of an ink space rectangle, said first mapping for transforming the coordinate data in said first ink capture space to said virtual ink space defined by said standard ink framework, wherein said first mapping is of the form of [406-409 on Figure 4]:

$$X' = ax + by + c$$

$$Y' = dx + ey + f; \text{ and}$$

a third portion storing a second mapping, said second mapping for transforming said virtual ink space to a display space, such that said second mapping is of the form of [405 on Figure 4]:

$$X'' = gx' + hy' + i$$

$$Y'' = jx' + ky' + m$$

such that combination of said first mapping and said second mapping is of the form of:

$$X'' = (ga + hd)x + (gb + he)y + gc + hf + i$$

$$Y'' = (ja + kd)x + (jb + ke)y + jc + kf + m,$$

said variables a, b, c, d, e, f, g, h, i, j, k, and m are coefficients that define the first and second mappings and said first and second mappings allowing said coordinate data to be rendered to said display space”.

Close prior arts were found for transforming handwritten electronic ink from the capture space to the output (display) space are Capps et al. [US 5,465,325]; the well-known transformation equations Baxes [ISBN 0-471-00949-0] and establishing a device independent standard size for bitmap images and converting from the standard size to an output (display) size S.M. Franklin and A.M. Peters [“Device-Independent Bitmap Sizing”]. Applicant uniquely claimed a distinct feature in the instant invention, which are not found in the prior art, either

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singularly or in combination. The feature being **the transformation from the capture space to a virtual ink space**. This feature is not found or suggested in the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

[3] Claims 1-6, 8-10 and 27 are allowed. Allowed claims have been renumbered 1-10.

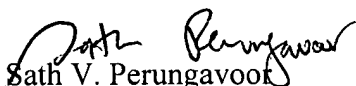
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Contact Information

[4] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Sath V. Perungavoor whose telephone number is (571) 272-7455. The examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Bhavesh Mehta whose telephone number is (571) 272-7453, can be reached on Monday to Friday from 9:00am to 5:00pm. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sath V. Perungavoor
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May 24, 2005

✓ **MEHRDAD DASTOURI**
PRIMARY EXAMINER

